Education sector expenditure and future cost scenarios under curriculum reform
Policy Brief

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Kenya’s education sector expenditure and cost scenarios under curriculum reform

1. Background and overview of the reform

Kenya’s long term development vision – Vision 2030 – sets aspirations to be a middle income country by 2030, with education producing the human capital necessary for this.

Over the last two decades Kenya has come to demand comprehensive reforms in education, to respond to societal needs, economic ambitions, and to reduce wastage and inequities in the system. Government, led by the Ministry of Education, has embarked on a curriculum reform; major components of which include: a shift in the cycles from 8 years of primary plus 4 of secondary to 6 years of primary, 3 of junior secondary and 3 of senior secondary (8-4 to 6-3-3); competencies for learners at each level; provisions for local context and content in the curriculum; introduction of three pathways in secondary education; emphasis on formative assessment instead of examinations; and inclusive education for children with special education needs.

Developing the new curriculum presents an opportunity to address many issues in the education sector, yet raises the question of what resources are required for effective implementation – and are they available. With real economic growth of 5.5% per year on average (2010-2015), and population growing steadily at 2.8% per year, per capita incomes have been increasing. Meanwhile government domestic revenues and expenditures have stayed relatively constant as a proportion of GDP, with a fiscal deficit of 4-7% of GDP.

This briefing note sets out an analysis of recent trends in public spending on education, and projections for future sector costs to Government, and the implications of curriculum reform for affordability. A full report contains more extensive analysis, which should be read to understanding all the assumptions used in analysis and wider findings on impacts of curriculum reform.

2. Financing of the education sector

Government’s commitment to education is clear: education receives 14% - 20% of the budget, and 5.1 - 5.5% of GDP (Figure 1). Moreover, education recurrent spending is equivalent to one quarter of domestic revenues. The budget available to education has grown by 70% between 2010/11 and 2014/15 (Figure 2), reflecting growing enrolment. Salaries use 60% of spending, and with non-salary items the recurrent spending takes up 90% of the budget, leaving 10% for development.
Primary education receives the largest share of spending (42%, Figure 3), followed by secondary and university. ECDE is devolved to counties and received only 2% in 2014/15.

Figure 3. Distribution of education spending by levels

<table>
<thead>
<tr>
<th>Year</th>
<th>Admin</th>
<th>ECDE</th>
<th>Primary</th>
<th>Secondary</th>
<th>TVET</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/15</td>
<td>6</td>
<td>2</td>
<td>42</td>
<td>31</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

Unit costs have generally been stagnant or falling, except for pre-primary which has seen average spending triple in five years, but still received less than 1% of GDP per capita per child in 2014 (Figure 4). TVET and university saw the most dramatic reductions in average spending. Reductions in unit costs may reflect increases in enrolment surpassing resources; though it is unclear what this means for quality of services and efficiency. As is typical, unit costs increase substantially at each progressive level of education.

International comparison

Kenya is efficient at achieving completion compared with neighbouring east African countries which also have a 7 or 8 year primary cycle. Within these six countries, Kenya commits significantly more of its GDP to education than Ethiopia, Tanzania and Uganda, and the Africa average, but less than Malawi and Mozambique. However it has by far the highest Grade 9 completion rate of these countries at 63%, where the next highest has just 46% (Tanzania), and Malawi and Mozambique both have below 25% completion.

3. Costs and affordability of the curriculum reform

Many factors will be affected by the new curriculum, particularly resource management. A model has been developed to test resource gap scenarios. Three expenditure scenarios are selected to inform the implications for enrolment, expenditure and financing gaps between 2014 and 2030. The three scenarios are as follows (refer to the full report for all assumptions):

Scenario 0: Status quo. This scenario represents no change from the situation in 2014: enrolment rates and the curriculum continue as before.

Scenario 1: Universal basic education (UBE). This scenario assumes that the sector achieves universal basic education by 2018 – in other words 100% of children enrol and complete twelve years of primary and secondary education, with no drop-outs or repeaters.

Scenario 2: UBE, new curriculum. This scenario keeps the UBE attainment in Scenario 1, but introduces the new curriculum structure (6-3-3) in 2018. Under the new structure, the former primary and secondary cycles reduce by two and one years respectively, and a three year junior secondary is introduced, which has lower costs than senior secondary.

Expected change in the enrolment

All three scenarios will see enrolment increase substantially over the next 15 years. In Scenario 0, enrolment increases across ECDE, primary and secondary from 16 million today to 21 million in 2030, driven entirely by population growth. When universal basic education is achieved (Scenarios 1 and 2), enrolment increases even further to almost 24 million in 2030.
Affordability: Recurrent costs

Rapidly meeting the goal of universal basic education will drive up the sector’s costs to be unaffordable, although introducing the new curriculum slightly lessens this challenge. The status quo scenario (Scenario 0) has the lowest costs to the sector (Figure 5), and if the sector receives the same prioritisation of recurrent spending as at 2014 levels (25% of domestic revenue), the status quo is easily affordable. With UBE, Scenario 1 increases costs substantially, introducing a financing gap reaching Ksh 223 billion per year by 2030 (Figure 6). Efficiency savings from the new curriculum reduce the funding gap by Ksh 33 billion by 2030, but this is still unaffordable.

Figure 5. Recurrent expenditure and resource envelope under Scenarios 0, 1 and 2

Figure 6. Funding gap under Scenarios 0, 1 and 2

Required recurrent resource envelope

Strategies to reduce costs will be necessary to afford the new curriculum with UBE. Without cost savings, the curriculum reform with UBE (Scenario 2) requires over 35% of domestic resources by 2030. Given that education is already highly prioritised by the Government, the room for this sort of increase is very unlikely. Funding this scenario would require either reallocation towards education, or government borrowing, both of which may be unfeasible to the extent needed at these levels of costs.

Development costs of the reform

The short term transitional costs of preparing and introducing the new curriculum are affordable and could be taken by Government. These costs are estimated to be Ksh 1.7 billion over the next eight years – minor against a 2014/15 Government development expenditure of Ksh 21 billion. These costs include the design, piloting and roll-out, including teacher preparation.

The longer term ongoing investment costs of the sector (the development budget) would be much more substantial and unlikely to be affordable. All three scenarios face capital costs of providing laptops of up to Ksh 47 billion per year. Increase in enrolment requires large additional costs from classroom construction. The sector will always need to replenish textbooks, but with the new curriculum all books will need replacing, and annual costs will be as high as Ksh 30 billion. Development costs reach above Ksh 60 billion per year in all scenarios, and as high as Ksh 90 billion with the new curriculum (Scenario 2) – far above the Ksh 21 billion spend in 2014/15.
5. Key policy guidance and orientation

Look for ways to reduce unit costs

Assessment of the future costs of the sector shows that continuing current rates of enrolment, the government can easily afford the operational costs of education. However if the Government pursues and achieves universal enrolment and completion of basic education, the recurrent resource requirements would become unrealistic within the Government's total budget and likely allocation to education. There are most probably areas of spending which could be made more efficient, in order to reduce the unit costs. The Ministry of Education should look for areas to cut inefficiencies or make cost savings across all sub-sectors. Further analysis of the sector would support this: a full sector diagnostic, public expenditure review and expenditure tracking survey are all ways to find out where unit costs can be reduced without compromising the quality of delivery.

Look for ways to phase-in the new curriculum, to manage costs

Introducing the new curriculum should ease the increase in costs, because it replaces one year of relatively more expensive senior secondary with relatively cheaper junior secondary. However, this cost reduction is marginal and the Government will still need to look for ways to make delivery more affordable. In addition to the efficiency savings mentioned above, it could, for example, consider a longer phasing in of universal basic education, or providing less expensive practical training opportunities for young people who do not wish to continue in academic senior secondary schools. At the same time, the Government will need to prioritise construction of new classrooms in primary schools to cater for the addition of junior secondary students (standard 9).

It takes time and resources to plan and introduce a new curriculum effectively

Evidence from international experience suggests that the detail of planning, preparation and implementation is critical to the success of rolling out a new curriculum and pedagogies, particularly in terms of teacher training. The estimates of this cost for Kenya are quite reasonable, but the Ministry of Education and Kenya Institute for Curriculum Development should not underestimate the time and resource needed: for planning, fully preparing teacher trainers so they are qualified to train school teachers in the new curriculum and having teaching and learning materials ready in time for roll-out. The Ministry should also look for ways to provide ongoing support to teachers in using the new curriculum, as one-off central trainings are unlikely to be effective at instituting change.